6. FACILITIES

STANDARD 6.1

The Washoe County Sheriff's Office (WCSO) DNA Section is a facility that is designed to ensure the integrity of the analyses and the evidence.

6.1.1 The DNA laboratory is separately keyed and is also part of the secured facility of the Forensic Science Division at the Washoe County Sheriff's Office. Contamination is minimized through the separation of rooms.

6.1.2 The DNA laboratory is designed so as to minimize contamination:

Evidence examination (Rooms 119/121/123): Evidence examination (including evidence photography and microscopic examination) must be conducted at a separate time or in a separate space from DNA extraction, quantitation setup, and PCR amplification setup. The evidence examination area consists of three rooms that are physically separate from the amplified DNA room.

DNA extraction and quantitation setup (Room 140/140A): This area is for DNA sample extraction, quantitation setup, and concentration.

PCR amplification setup (Room 140/140A): This area is isolated from the extraction area by time to ensure the reaction mix cocktails are prepared in a clean environment. This area is physically separated from the amplified DNA work area.

6.1.3 Amplification and Separation of DNA (Rooms 141 & 142): This area is separated physically in the laboratory for containment of amplified DNA product. This area includes the amplification area with thermal cyclers and space for all procedures utilizing the amplified product for typing. Amplified DNA will be stored in this area until case completion. Upon case completion, amplified DNA may be disposed of by the DNA staff. All equipment, consumables, and reagents used in this area must be dedicated and must not be used in the extraction or PCR setup areas unless they are decontaminated prior to bringing them into these areas.

6.1.4 The QIAcube extraction robots are housed in Room 140/140A. These robots do not perform analysis through amplification.

6.1.5 The DNA laboratory will be cleaned with a bleach-based cleaner, e.g. Clorox Bleach Germicidal Cleaner, or approved substitute on a monthly basis to decontaminate the area. The quantitation and amplification set up areas will be wiped down with a bleach based-cleaner, e.g. Clorox Bleach Germicidal Cleaner, or approved substitute before and after each individual use. The extraction hoods will be cleaned with a mechanical wipe-down using either 70% ethanol solution or DNA Exitus or a combination of both. Ultraviolet light may also be used to clean the extraction hoods. If using DNA Exitus, it

should be followed with an ethanol or deionized water wipe down as DNA Exitus leaves a film on surfaces. A bleach-based cleaner, e.g. Clorox Bleach Germicidal Cleaner, or approved substitute can be used occasionally; however it must be followed with a wipe down with de-ionized water or ethanol to prevent rusting. The documentation of the monthly cleaning is posted in rooms 119, 140/140A, and 141. The effectiveness of decontamination will be measured through the routine use of controls during DNA examinations. If an amplification blank or reagent blank appears contaminated, it will be documented. Attempts will be made to determine the source of the contamination.